Advanced Call Router™

Manual

12/2010

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Advanced Call Router

Advanced Call Router is the standard AltiGen Call Router application plus call router service. Advanced Call Router requires the purchase and activation of an Advanced Call Router license.

Note: The workgroup to which incoming trunk calls will be routed via Call Router must be assigned to the auto attendant whose Action is set to "Adv - Advanced Call Router," with **Ext Num** set to the virtual extension you use to configure Call Router.

Installation

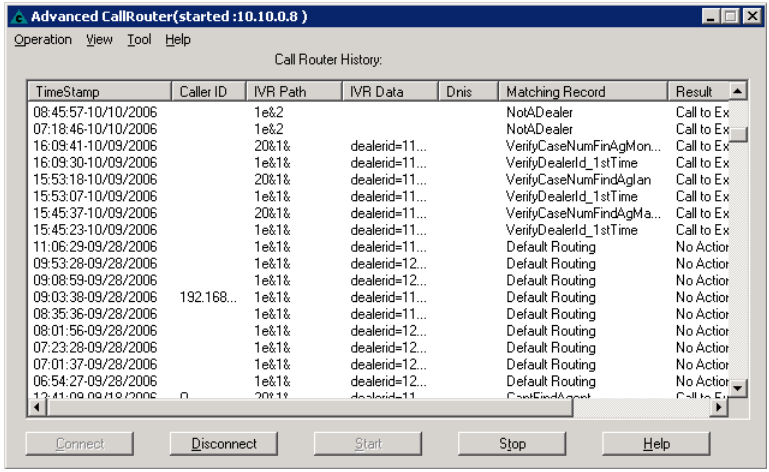
To install Advanced Call Router,

1. Run the .exe file from the Advanced Call Router folder of the MaxACD installation CD.
2. When prompted, enter the 20-digit license key for Advanced Call Router in the field and click **Next**.

   Setup will confirm the destination for the Call Router application (default is C:\Program Files\AltiGen\Call Router). To select a different location, use the **Browse** button to choose the new location.
3. Click **Next** to proceed.

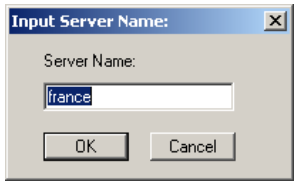
To Configure/Run Advanced Call Router

1. Launch Call Router from the Windows **Start** menu.

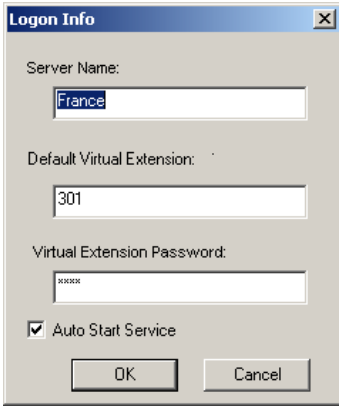

Advanced CallRouter(started :10.10.0.8)
Operation View Tool Help
Call Router History:
TimeStamp Caller ID IVR Path IVR Data Dnis Matching Record Result
08:45:57-10/10/2006 1e&2 NotADealer Call to Ex
07:18:46-10/10/2006 1e&2 NotADealer Call to Ex
16:09:41-10/09/2006 20&1& dealerid=11... VerifyCaseNumFinAgMon... Call to Ex
16:09:30-10/09/2006 1e&1& dealerid=11... VerifyDealerId_1stTime Call to Ex
15:53:18-10/09/2006 20&1& dealerid=11... VerifyCaseNumFindAgIan Call to Ex
15:53:07-10/09/2006 1e&1& dealerid=11... VerifyDealerId_1stTime Call to Ex
15:45:37-10/09/2006 20&1& dealerid=11... VerifyCaseNumFindAgMa... Call to Ex
15:45:23-10/09/2006 1e&1& dealerid=11... VerifyDealerId_1stTime Call to Ex
11:06:29-09/28/2006 1e&1& dealerid=11... Default Routing No Actior
09:53:28-09/28/2006 1e&1& dealerid=12... Default Routing No Actior
09:08:59-09/28/2006 1e&1& dealerid=12... Default Routing No Actior
09:03:38-09/28/2006 192.168... 1e&1& dealerid=11... Default Routing No Actior
08:35:36-09/28/2006 1e&1& dealerid=11... Default Routing No Actior
08:01:56-09/28/2006 1e&1& dealerid=12... Default Routing No Actior
07:23:28-09/28/2006 1e&1& dealerid=12... Default Routing No Actior
07:01:37-09/28/2006 1e&1& dealerid=12... Default Routing No Actior
06:54:27-09/28/2006 1e&1& dealerid=12... Default Routing No Actior
Connect Disconnect Start Stop Help

2. Click the **Connect** button to enter the Call Router Server Name or IP address to connect to, then click **OK**.

   To disconnect from this server, click the **Disconnect** button.



3. Select **Operation** > **Logon Info**.



4. In the **Logon Info** window, enter the **Server Name** that Advanced Call Router will connect to, along with the **Default Virtual Extension** and **Password** then click **OK**.

   (Optional) Check **Auto Start Service** to have Advanced Call Router start routing calls automatically, after the system restarts or after Advanced Call Router service has been stopped and restarted.

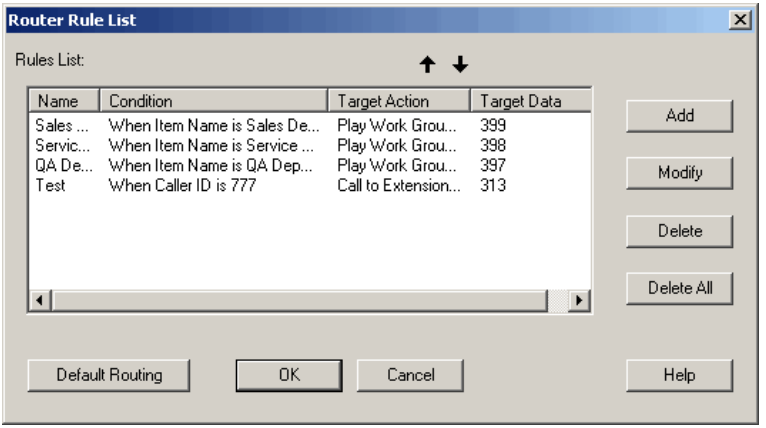
   Note: Up to 8 login attempts are allowed, after which login will be disabled from 1 to 24 hours (depending on the setting in MaxACD).

5. Click **Start** to run Advanced Call Router. When Advanced Call Router is stopped, you can configure the server and login information.

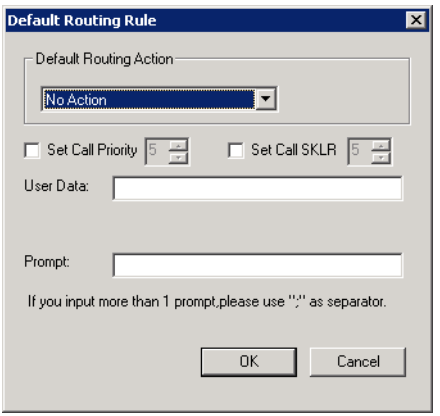
6. Route Rules and Show Monitor can be configured after Advanced Call Router is started.

Advanced Call Router Route Rules

To create route rules that will be used to route calls, select **Operation** > **Route Rule** to open the **Route Rule List** window. This window also allows you to view existing route rules, and modify and delete route rules.



- **Add** - opens a Custom Record dialog box, where you can create a new record and build the conditions for the record.
- **Modify** - opens the Customer Record dialog box to modify the record selected in the Record List.
- **Delete** - deletes the record selected in the Record List.
- **Delete All -** deletes all records in the Record List.
- The **Default Routing** button opens a **Default Routing Rule** dialog box, where you can specify the action for Call Router to take if no match is found in the rules or in the database.

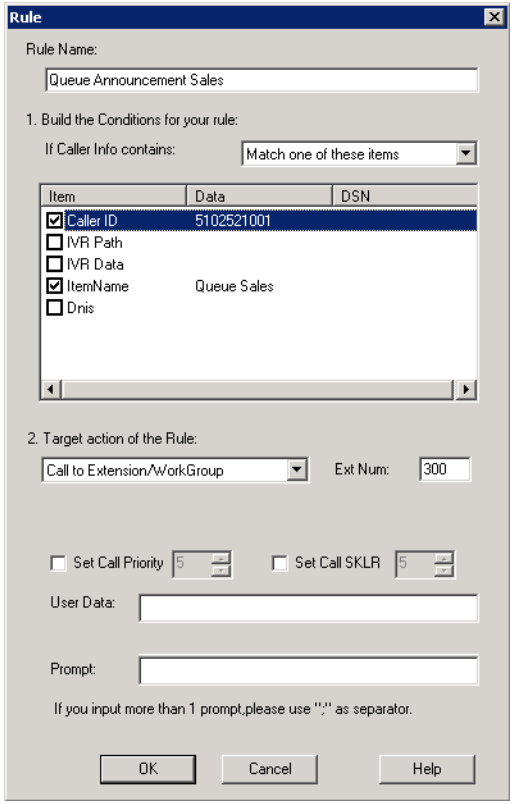


Default Routing Action options: No Action, Goto Top Level, Repeat Current Level, Call to Extension/Workgroup, Call to Operator, Dial by Name, Collect Extension, Directory Service, Record Message (specify target data in accompanying text box), Mailbox Access, Disconnect, System Callback, Collect Digits (specify fields in accompanying Collect Digit dialog box), Other DDR Application (specify target data in accompanying text box), Play WG Queue Status (specify target data in accompanying text box).

Creating Route Rules

To create a route rule:

1. Select **Operation > Route Rule**.
2. Click the **Add** button to open a new Route Rule or **Modify** to modify an existing rule in the **Rules List** dialog box.



3. In the **Rule Name** field, enter or modify the rule name.
4. Select the data to match against routing rules.
   - **If Caller Info contains**—lets you select Call Route Request data to match against the customer record.
     a) Select "**Match one**" or "**Match all**" from the drop-down list.
     b) Select the items you want.
     c) Click in the **Data** column and type to specify the data.

     To manually specify data for an item, right-click the item, select **Input data** and enter information in the column.
     - Caller Entered Digits must be numeric only.
     - You can enter "*" as a wildcard character for any length of digits, or "?" for a single digit.

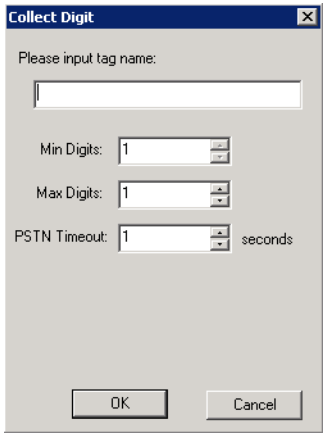
For example, if you specify Call ID Data “510252*,” this will match all Caller IDs 510-252-xxxx. If you specify Call ID Data “510252????,” this will match all Caller IDs 510 252-xxxx.

- To specify data from an existing database, right-click the item, select **From user database**, and enter information in the **DataSource** dialog box.

5. Select a **Target action** for Call Router to perform when Call Route Request data matches this record.

   Target action options: No Action, Goto Top Level, Repeat Current Level, Call to Extension/Workgroup, Call to Operator, Dial by Name, Collect Extension, Directory Service, Record Message (specify target data in accompanying text box), Mailbox Access, Disconnect, System Callback, Collect Digits (specify fields in accompanying Collect Digit dialog box—see below), Other DDR Application (specify target data in accompanying text box), Play WG Queue Status (specify target data in accompanying text box—see **Note** below).

Collect Digit Dialog Box



- **Tag name** - for example, “password” (gathered from a response to an Auto Attendant prompt or another AltiGen SDK application)
- **Minimum Digits** and **Maximum Digits** to collect
- **PSTN** timeout value

Note: **Play WG Queue Status** - if you select "Play WG Queue Status," Advanced Call Router must log on as a workgroup extension with password (**View > Show Workgroup Status > Add**) and Call Router's virtual extension and password. (The virtual extension that Call Router uses does not have to be a member of the workgroup.) Specify this workgroup extension in the textbox that appears when you select **Play WG Queue Status**. (See "Queue Announcements" on page 13.)

If you want to apply the "**Play WG Queue Status**" Target action to several different workgroups, you must create separate rules for each.

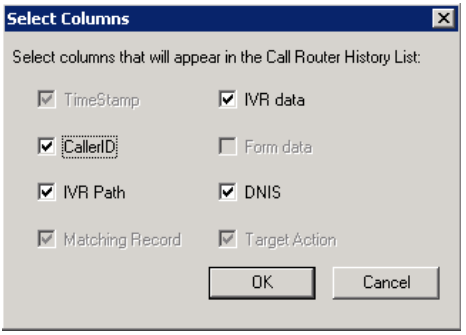
6. Enter optional data to match against the routing rule:
   - **Set Call Priority**—Check the box and choose a call priority level.
   - **Set Call SKLR**—Check the box and choose an SKLR level.
   - **User Data**—Gathered from a response to an Auto Attendant prompt or another AltiGen SDK application, or the text an agent typed in the User Data dialog box using the method DISP=
   - **Prompt**—The prompt to play to the callee.
7. Click **OK**.

Viewing Advanced Call Router History Menu

The Advanced Call Router window gives a history of all incoming trunk calls to Advanced Call Router.

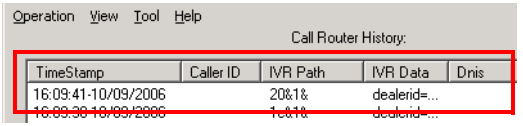
To specify Call Router History window content

1. Choose **View > Select Column**.
2. In the **Select Columns** dialog box, select the following columns to display in the Call Router history window:
   - Caller ID
   - IVR Path
   - IVR data
   - DNIS



Call Route Request Data

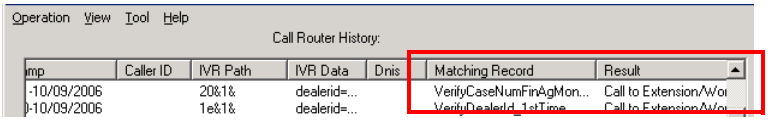
The "Call Router Request" message sent by MaxACD to Call Router contains data about the incoming call, which Call Router attempts to match against your routing rules. Call Route Request data consists of Caller ID, IVR Path, IVR data and DNIS, all collected via real-time monitoring.



Note: IVR Path shows the Auto Attendant assignment for the workgroup that receives the call. If the workgroup's AA assignment is 5, this item shows "0 & 5"; if the AA assignment is 3, the item shows "0 & 3," and so on. The "0" indicates transfer to an Auto Attendant.

Call Route Response Data

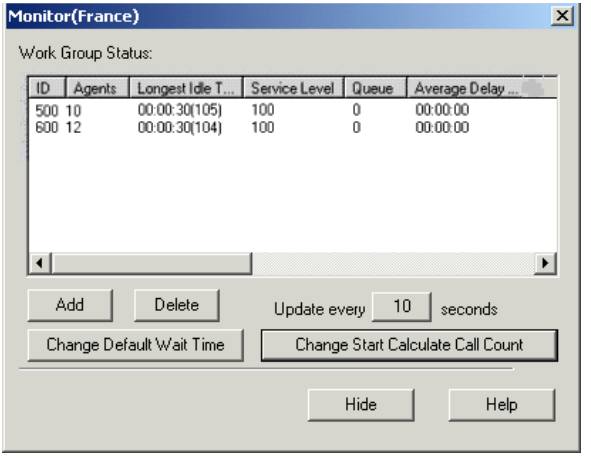
The "Call Route Response" message, sent from Call Router to MaxACD, contains the search results of the Call Route Request Message. In the Call Router History window, this data shows how Call Router handled each call. Call Route Response data includes Matching Record (routing rule Call Router referred to for call routing) and Result (how and where the call was routed), all collected via real-time monitoring.



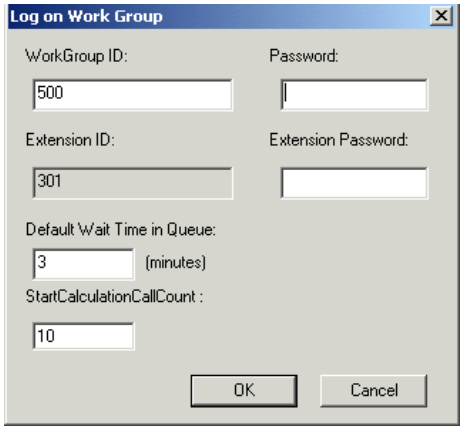
Note: If no match is found between the Call Route Request Data and the routing rules, the call is routed according to the business rules that check monitored workgroups for the longest available agent, maximum service level, and minimum expected delay.

Show Workgroup Status

To view real-time data on incoming trunks to workgroup, select **View > Show Workgroup Status**.



- The main window box displays the following workgroup fields: **ID**, **Agents**, **Longest Idle Time**, **Service Level**, **Queue**, **Average Delay** and **Default Wait Time**.
- **Add** button—Click **Add** to log on to a workgroup whose incoming trunk call data you want to monitor. This opens a Log On Work Group dialog box.



Enter the workgroup extension as the **WorkGroup ID** and **password**, and enter the virtual extension's **password**. In the field for **Default Wait Time in Queue**, type in the desired minutes. (By default, the **Extension ID** field is grayed out.)

- **Delete** button—click **Delete** to remove the selected workgroup from the display.
- **Change Default Wait Time**—click this button to change the default anticipated wait time associated with the workgroup queue.

Note: The workgroup to which incoming trunk calls will be routed via Call Router must be assigned to the Auto Attendant whose **Action** is set to "Avd - Advanced Call Router," with **Ext Num** set to the virtual extension you use to start Call Router.

If you want to announce queue status to callers (**Target action** of any routing rule is "Play WG Queue Status,") complete the **Virtual Extension ID** and **Virtual Extension** password fields using the workgroup agent extension (and its password) specified in the rule.

To log on to multiple workgroups:

- Click **Add** again and enter the next Workgroup ID and Password.
- **Change Start Calculate Call Count**—click this button to change the starting point for the number of calls to be reached for Call Router to start calculating call data.

Clearing Advanced Call Router History Data

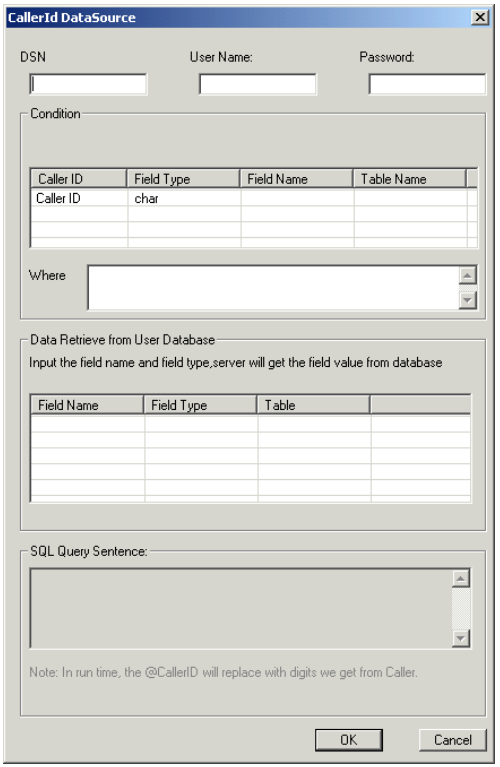
To clear data from the Advanced Call Router History window

1. Go to the directory "Program Files\AltiGen\Call Router" and locate the **Call Router.csv** file.
2. Open **Call Router.csv** and delete all contents.
3. Save and close **Call Router.csv**.

Additional Advanced Call Router Features

Building SQL Queries

To build an SQL query that Call Router will send to your database, use the **CallerId Datasource** dialog box. The customer information retrieved from your database will be used in the routing rule.



To open the Datasource dialog box, right-click on a data **Item** you want to specify using information from an existing database. Select **From user database**:

To build a SQL query:

1. Enter User Name and Password information for the database.
2. Enter information for the database you are querying against. For example:

   DSN - BankAccount

   Table Name - AccountBalance

   Matched Field Name - CustomerPhoneNumber

   Matched Field Data Type - char

   Note: as you build the query, the **SQL query sentence** will appear in the window at the bottom.
3. Specify the condition for this query.
   a. Select the **Caller Match Item** data for this query - **Caller ID**, **IVR Path**, **DNIS**, **Item name** or **IVR data**.
   b. Add any additional condition. For example Where - && Balance>1000
4. Click **OK**. You will be returned to the **Rule** dialog box, where the SQL query will be shown in the **Data** column and the database will be shown in the **DSN** column.

Queue Announcements

Note: Queue announcements can now be done directly through MaxACD. Or you may use Advanced Call router for this function if you want.

If you use Advanced Call Router to inform callers of their position in a workgroup queue, there are two requirements:

1. In Call Router, you must create a rule with Target action “Play WG Queue Status.” In addition, enter an Item Name that matches the name of the Auto Attendant’s “Advanced Call Routing” name. The workgroup extension information you specify in the rule must also be entered when Call Router logs on in the Monitor window. Thus, it is a

requirement to use the same virtual agent extension if you are writing several different queue announcement rules.

2. In MaxACD Administrator, you must configure one of the Auto Attendant numbers to which Call Router is assigned to "Advanced Call Router." 1) Enter the same "Item Name" you use in the rule discussed immediately above. 2) Replace the "No Action" level with "Call – to Ext./Workgroup," and enter the workgroup extension number.

If your organization has multiple workgroups and you want queue announcement for several or all of them, you must create separate rules for each, with workgroup extension information pertinent to each workgroup.

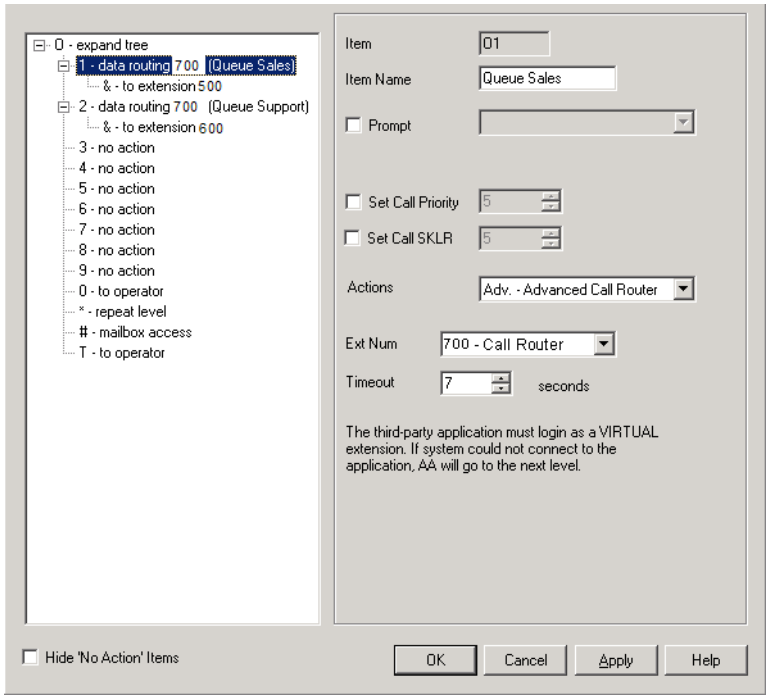
Example:

Suppose you use virtual extension 700 to log in to Call Router, and you have two workgroups, Sales and Support, with the following agent and workgroup extensions:

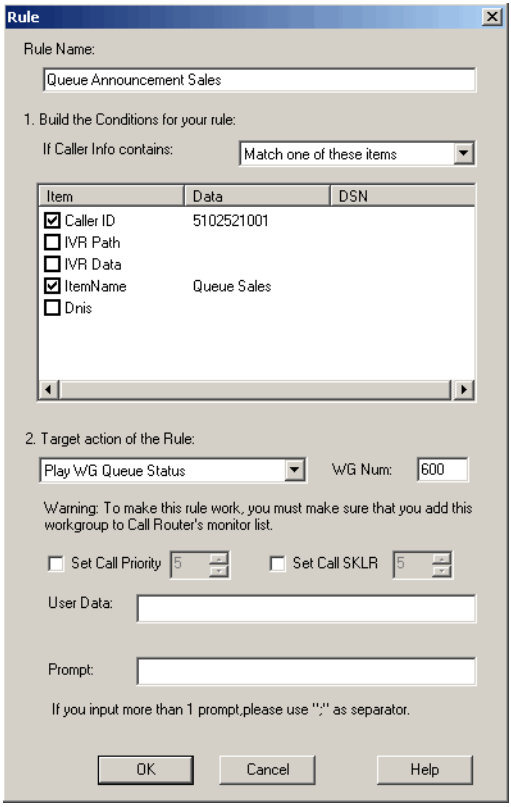
	Sales	**Support**
Workgroup extension number	500	600
Call Router virtual extension number	700	700

For both workgroups, you want Call Router to check incoming calls for Caller ID and IVR Path, and to play the WG queue status if a match is found and all agents are busy.

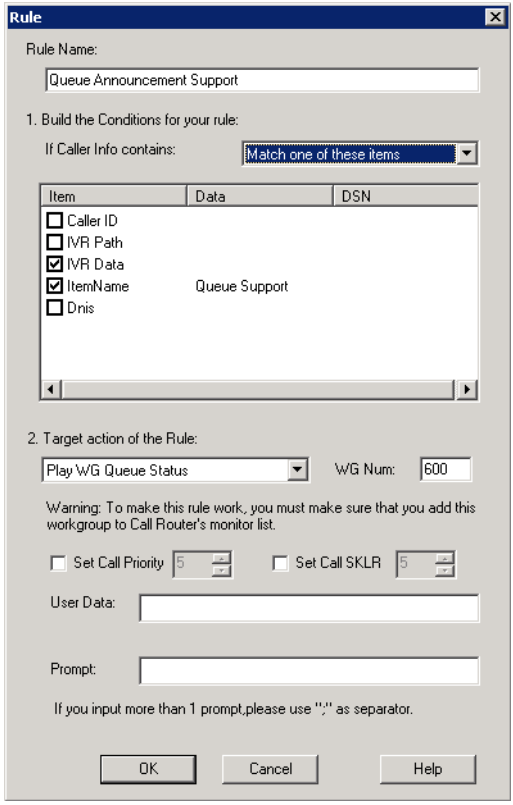
In MaxACD Administrator, you configure the Auto Attendant to which Call Router is assigned as shown below. (The example uses Auto Attendant 2.) Note that you must enter a different Item Name for each level.



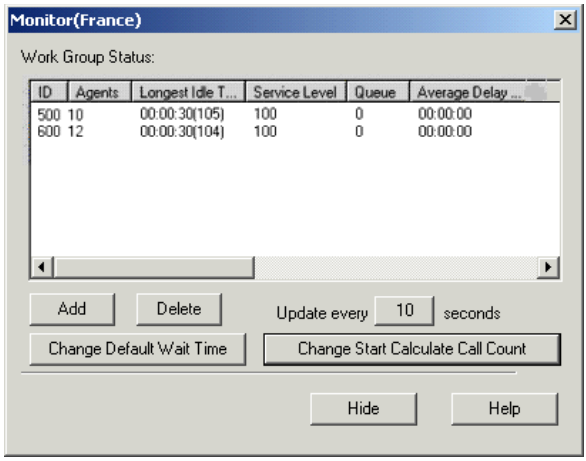
For Sales, you create a rule as shown below.

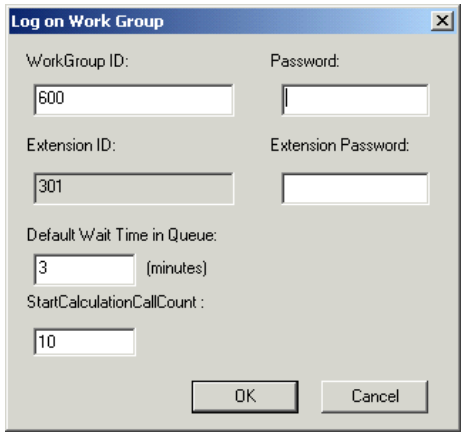


Similarly, for Support, you create a rule as shown below.

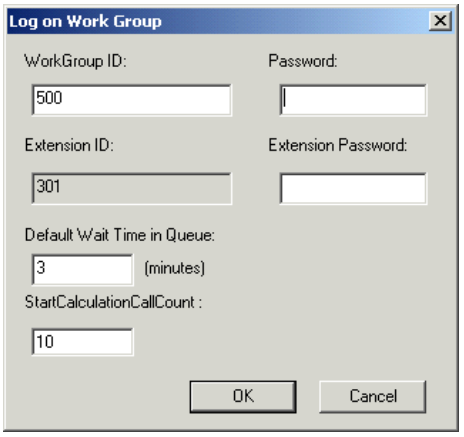


In the Monitor window, click **Add** to log on to Sales, entering both the workgroup extension & password and the virtual extension & password you specified in the "Auto Attendant Sales Queue Announcement" rule:

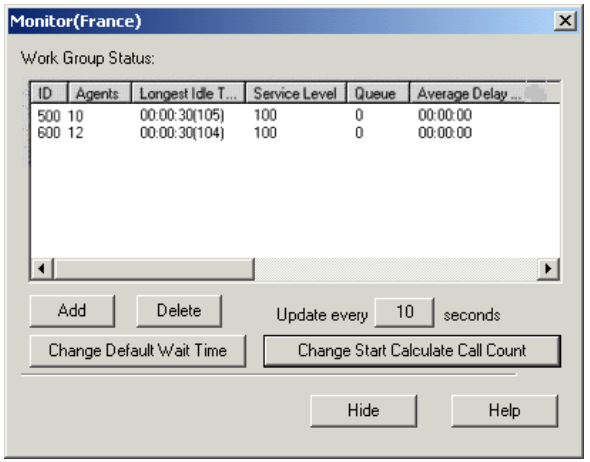




In the Monitor window, click **Add** to log on to Support, entering both the workgroup extension & password and the virtual extension & password you specified in the "Auto Attendant Sales Queue Announcement" rule:



The Monitor window shows that Call Router is logged on to both workgroups. Calls to each workgroup will be checked against the rules and will trigger a queue announcement if a match is found and all agents are busy.

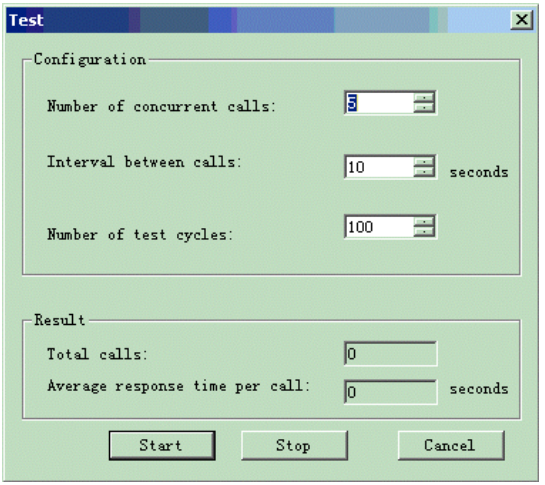


Testing Call Router

To test the performance of Call Router, you can access a test tool from the Call Router main menu. Call Router must be stopped in order to run the test.

To test Call Router:

1. With Call Router function stopped, go to **Test** in the Tool drop-down list of the Call Router main menu for the **Test** dialog box.

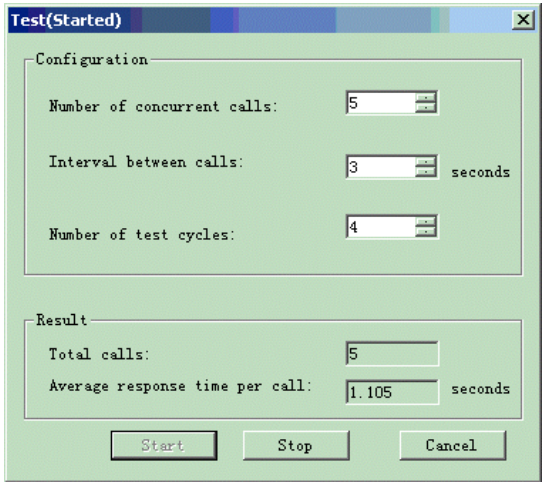


2. In the **Configuration** fields, you can input the following test parameters:

   - **Number of concurrent calls**
   - **Interval between calls**
   - **Number of test cycles**

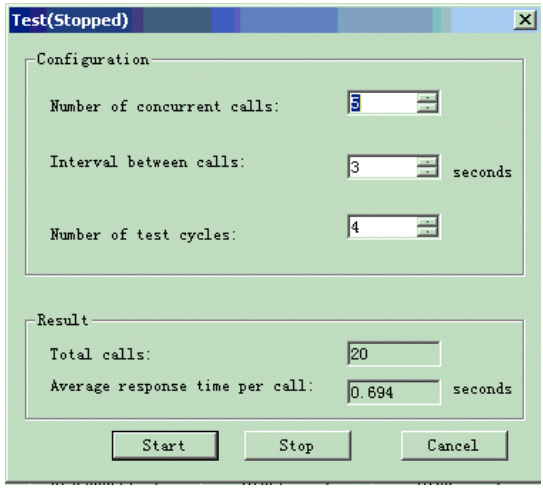
   For example, inputting **5** for ***concurrent calls***, **3** for ***interval between calls***, and **4** for ***test cycles*** means that every 3 seconds, there will be 5 concurrent call requests to Call Router. Total cycles of concurrent requests will be 4 times.

3. After inputting the test parameters, click **Start**. During the test, you can click **Stop** to stop the test. The title of the **Test** dialog box will be shown as "*Test(Started)*" while running.



The total calls processed and average time per call will be updated in real-time during the test. You will know how many calls were processed and the average response time per call at that time.

4. After the test has finished, the title of the **Test** dialog box will be shown as "*Test(Stopped)*."



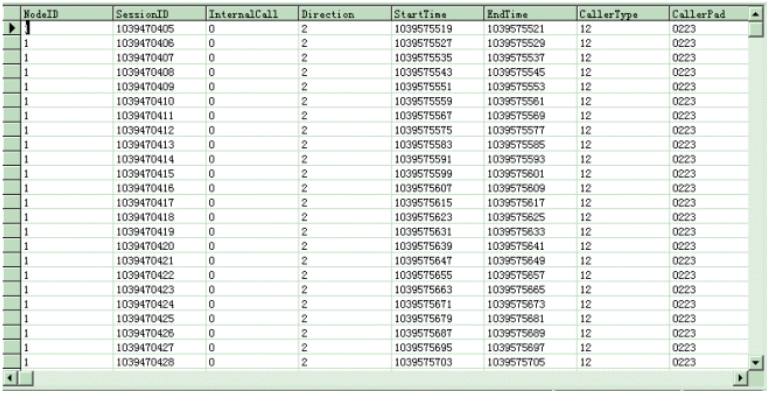
5. The **Total calls** that Call Router processed and **Average response time per call** of this test will be shown in the **Result** fields.

Testing SQL Server Database

To test SQL server database access performance of Call Router:

1. Add a database for the SQL server.

   For example, for a database “calldb” and table name “RTMCALL”, 10,000 records are added to the table.

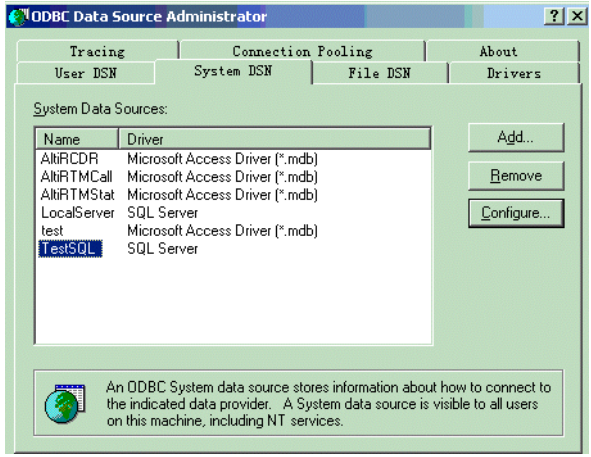


NodeID	SessionID	InternalCall	Direction	StartTime	EndTime	CallerType	CallerPad
1	1039470405	0	2	1039575519	1039575521	12	0223
1	1039470406	0	2	1039575527	1039575529	12	0223
1	1039470407	0	2	1039575535	1039575537	12	0223
1	1039470408	0	2	1039575543	1039575545	12	0223
1	1039470409	0	2	1039575551	1039575553	12	0223
1	1039470410	0	2	1039575559	1039575561	12	0223
1	1039470411	0	2	1039575567	1039575569	12	0223
1	1039470412	0	2	1039575575	1039575577	12	0223
1	1039470413	0	2	1039575583	1039575585	12	0223
1	1039470414	0	2	1039575591	1039575593	12	0223
1	1039470415	0	2	1039575599	1039575601	12	0223
1	1039470416	0	2	1039575607	1039575609	12	0223
1	1039470417	0	2	1039575615	1039575617	12	0223
1	1039470418	0	2	1039575623	1039575625	12	0223
1	1039470419	0	2	1039575631	1039575633	12	0223
1	1039470420	0	2	1039575639	1039575641	12	0223
1	1039470421	0	2	1039575647	1039575649	12	0223
1	1039470422	0	2	1039575655	1039575657	12	0223
1	1039470423	0	2	1039575663	1039575665	12	0223
1	1039470424	0	2	1039575671	1039575673	12	0223
1	1039470425	0	2	1039575679	1039575681	12	0223
1	1039470426	0	2	1039575687	1039575689	12	0223
1	1039470427	0	2	1039575695	1039575697	12	0223
1	1039470428	0	2	1039575703	1039575705	12	0223

Note: Because the data of DDR request has been hard coded, if you want a rule match, you need to add the record to the table. The caller ID of test request will be “1039470405.” IVR Path of test request will be “0&9.”

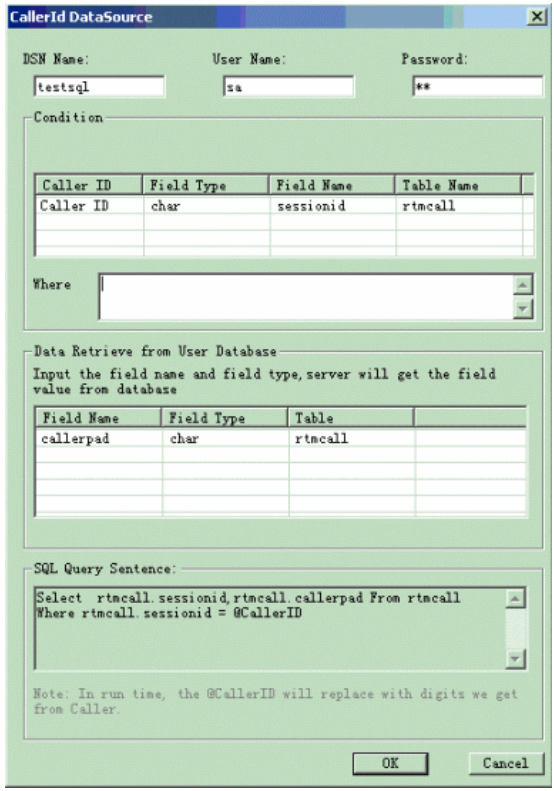
To use the “SessionId” field in the table to match caller ID of the request, you must add a record to the table and set the SessionId value to “1039470405”. Then during match process, the matched result will be true.

2. Add a data source to “ODBC” configuration in Windows.



The “TestSQL” is the newly added data source. This data source is connected to the SQL server’s “calldb” database.

3. In Call Router, add a rule to access database.



You can change the rule configuration to fit your own conditions.

During the test, Call Router will use this rule to match the DDR request. When using this rule, Call Router will access the SQL server to execute the SQL query.